

AMENDMENTS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Original) An isolated peptide that selectively binds aminopeptidase A.
2. (Original) The isolated peptide of claim 1, wherein the isolated peptide inhibits aminopeptidase A activity.
3. (Original) The isolated peptide of claim 2, wherein the isolated peptide inhibits angiogenesis.
4. (Original) The isolated peptide of claim 1, wherein the isolated peptide comprises SEQ ID NO:1, SEQ ID NO:2, or SEQ ID NO:3.
5. (Original) The isolated peptide of claim 1, wherein the isolated peptide is therapeutic for the treatment of cancer.
6. (Original) The isolated peptide of claim 1, wherein the isolated peptide is therapeutic for diabetic retinopathy.
7. (Original) The isolated peptide of claim 1, wherein the isolated peptide is operatively coupled to a therapeutic agent.
8. (Original) The isolated peptide of claim 1, wherein the isolated peptide is covalently coupled to a therapeutic agent.
9. (Original) The isolated peptide of claim 8, wherein said therapeutic agent is a drug, a chemotherapeutic agent, a radioisotope, a pro-apoptosis agent, an anti-angiogenic agent, a hormone, a cytokine, a cytotoxic agent, a cytocidal agent, a cytostatic agent, a peptide, a protein, an antibiotic, an antibody, a Fab fragment of an antibody, a hormone antagonist, a nucleic acid or an antigen.

10. (Original) The isolated peptide of claim 9, wherein the anti-angiogenic agent is selected from the group consisting of thrombospondin, angiostatin, pigment epithelium-derived factor, angiotensin, laminin peptides, fibronectin peptides, plasminogen activator inhibitors, tissue metalloproteinase inhibitors, interferons, interleukin 12, platelet factor 4, IP-10, Gro- β , thrombospondin, 2-methoxyoestradiol, proliferin-related protein, carboxamidotriazole, CM101, Marimastat, pentosan polysulphate, angiopoietin 2 (Regeneron), interferon-alpha, herbimycin A, PNU145156E, 16K prolactin fragment, Linomide, thalidomide, pentoxifylline, genistein, TNP-470, endostatin, paclitaxel, Docetaxel, polyamines, a proteasome inhibitor, a kinase inhibitor, a signaling peptide, accutin, cidofovir, vincristine, bleomycin, AGM-1470, platelet factor 4 and minocycline.

11. (Original) The isolated peptide of claim 9, wherein said pro-apoptosis agent is selected from the group consisting of etoposide, ceramide sphingomyelin, Bax, Bid, Bik, Bad, caspase-3, caspase-8, caspase-9, fas, fas ligand, fadd, fap-1, tradd, faf, rip, reaper, apoptin, interleukin-2 converting enzyme or annexin V.

12. (Original) The isolated peptide of claim 9, wherein said cytokine is selected from the group consisting of interleukin 1 (IL-1), IL-2, IL-5, IL-10, IL-11, IL-12, IL-18, interferon- γ (IF- γ), IF- α , IF- β , tumor necrosis factor- α (TNF- α), or GM-CSF (granulocyte macrophage colony stimulating factor).

13. (Original) The isolated peptide of claim 1, wherein said peptide is attached to a molecular complex.

14. (Original) The isolated peptide of claim 13, wherein said complex is a virus, a bacteriophage, a bacterium, a liposome, a microparticle, a magnetic bead, a yeast cell, a mammalian cell or a cell.

15. (Original) The isolated peptide of claim 14, wherein said complex is a virus or a bacteriophage.

16. (Original) The isolated peptide of claim 15, wherein said virus is chosen from the group consisting of adenovirus, retrovirus and adeno-associated virus.

17. (Original) The isolated peptide of claim 15, wherein said virus is further defined as containing a gene therapy vector.

18. (Original) The isolated peptide of claim 14, wherein said peptide is attached to a eukaryotic expression vector.

19. (Original) The isolated peptide of claim 18, wherein said vector is a gene therapy vector.

20. (Original) A pharmaceutical composition comprising the peptide of claim 1 or an antibody that selectively binds aminopeptidase A.

21. (Original) The pharmaceutical composition of claim 20, further comprising the peptide of claim 4.

22. – 47. (Cancelled)

48. (Original) The peptide of claim 1, identified by a process comprising:

- a) contacting a cell or tissue expressing APA with a plurality of phage, wherein each phage comprises heterologous peptide sequences incorporated into a fiber protein,
- b) removing the phage that do not bind to the cell or tissue expressing APA, and
- c) isolating the phage that bind the cell or tissue expressing APA.

49. (Original) The peptide of claim 48, wherein the method is repeated at least twice.

50. (Original) The peptide of claim 48, further comprising isolating and sequencing the isolated phage nucleic acid.

51. (Original) The peptide of claim 48, wherein APA expression is endogenous.

52. (Original) The peptide of claim 48, wherein APA expression is exogenous.

53. (Withdrawn) An antibody that binds a peptide in accordance with claim 1.

54. (Withdrawn) A method of inhibiting viral attachment to a cell comprising contacting the cell with an effective amount of a) a peptide in accordance with claim 1, 2) an antibody that binds APA, or c) an antibody in accordance with claim 53.

55. (Withdrawn) The method of claim 54, wherein the cell is in a human and the peptide or antibody is administered to said human.

56. – 63. (Cancelled)